ISSN 0317-5138

MANITOBA
DEPARTMENT OF ENERGY AND MINES

Hon. Wilson D. Parasiuk
Minister

Marc Eliesen
Deputy Minister

MINERAL RESOURCES DIVISION

Dr. Ian Haugh
Assistant Deputy Minister

ACCIDENTS AT MINES

For the year ending December 31st

1981

Prepared by
Mining Engineering and Inspection Section

ACCIDENTS AT MINES - 1981

In 1981, 743 lost time injuries were reported compared with 920 in 1980. The frequency of lost time accidents decreased by 19 per cent to 57 per million manhours of employment. A lost time injury is one which results in a worker being disabled during a working day after the day on which the accident occurred, and for which compensation becomes payable by the Worker's Compensation Board of Manitoba. Accidents which resulted in fatal injuries are included.

Employment at mines decreased 6 per cent to 13,016,922 manhours worked in 1981 from 13,812,595 in 1980. The average number of persons employed was down 2 per cent to 7,135 in 1981 from 7,271 in 1980.

In the breakdown by class of operation all groups except "Mine Construction Contractors" had lower injury frequencies than in 1980. The "Producing Mines" category was 11 per cent lower; "Developing Mines and Mining Contractors", 38 per cent lower; "Quarries" 32 per cent lower; "Gravel, Sand Pits, Clay, Bentonite, Peat", 6 per cent lower; and "Contract" Diamond Drilling", 52 per cent lower. The "Mine Construction Contractors" group experienced a 25 per cent increase in injury frequencies.

In 1981, there was one fatal accident at a quarry which occurred while drilling.

In 1981, 16,155 days were lost due to injuries, a decrease of 7 per cent from the 17,305 days lost in 1980. The severity rate at 1,241 days lost per million manhours was virtually unchanged from 1980.

"Lifting-Moving" was identified as the cause of injury in 21 per cent of the cases, an increase from 12 per cent in 1980. "Slips - Falls - Twists: Level" accounted for 17 per cent; "Striking - Struck By" 16 per cent; "Caught Between Machinery and Equipment" 7 per cent; "Falls from Heights" 6 per cent; "Falling Objects" 6 per cent; all other causes, 27 per cent. Seventy-nine (79) per cent of all injuries were classified as "Cuts and Bruises" and "Strains and Sprains"; 7 per cent involved "Fractures".

There were no injuries involving explosives during 1981.

TABLE NO. 1

MANHOURS WORKED AND LOST TIME INJURIES - ALL MINING OPERATIONS

YEAR	PERSONS INJURED			DAYS LOST	MANHOURS WORKED	FREQUENCY PER MILLION MANHOURS WORKED		
	NON FATALLY	FATALLY	TOTAL			NON FATALLY	FATALLY	TOTAL
1981	742	1	743	16,155	13,016,922	57	0.08	57
1980	914	6	920	17,305*	13,812,595	66	0.43	67
1979	807	4	811	17,882*	13,158,509	61	0.30	62
1978	827	2+	829	18,268*	13,356,965	62	0.15	62
1977	924	12	936	16,353*	15,012,725	62	0.80	62
1976	928	4	932	17,347*	15,785,391	59	0.25	59
1975	1,121	9	1,130	17,871*	17,109,983	66	0.53	66
1974	1,193	3	1,196	19,396*	17,422,690	68	0.17	69
1973	970	11	981	18,679*	16,202,092	60	0.67	61
1972	867	8**	875	20,724*	16,560,734	52	0.48	53
1971	562	13	575	14,459*	18,693,620	30	0.70	31
1970	544	7	551	16,851*	20,895,588	26	0.33	26
1969	607	8	615	18,804*	20,897,335	29	0.38	29
1968	681	12	693	20,395*	20,359,896	33	0.59	34
1967	764	9	773	20,297*	17,336,372	44	0.52	45
1966	679	7	686	12,456	15,173,883	45	0.46	45
1965	594	4	598	11,965	13,873,103	43	0.29	43
1964	546	4	550	6,403	13,143,258	42	0.30	42
1963	618	8	626	9,778	13,101,057	47	0.61	48
1962	830	3	833	12,290	13,289,453	62	0.23	63
1961	1,101	7	1,108	11,898	12,241,625	90	0.57	91
1960	871	2	873	11,710	9,997,233	87	0.20	87
1959	747	5	752	12,165	8,342,391	90	0.60	90
1958	479	2	481	7,860	8,334,929	57	0.24	58
1957	514	8	522	8,132	9,001,696	57	0.89	58
AVERAGE FREQUENCY FOR LAST 10 YEARS						61	0.40	62

* Includes days lost for injuries occurring in previous years.

** Does not include two fatalities investigated, but not classed as mining accidents.

\+ Does not include one fatality investigated, but not classed as a mining accident.

TABLE NO. 2

EMPLOYMENT - ALL MINING OPERATIONS

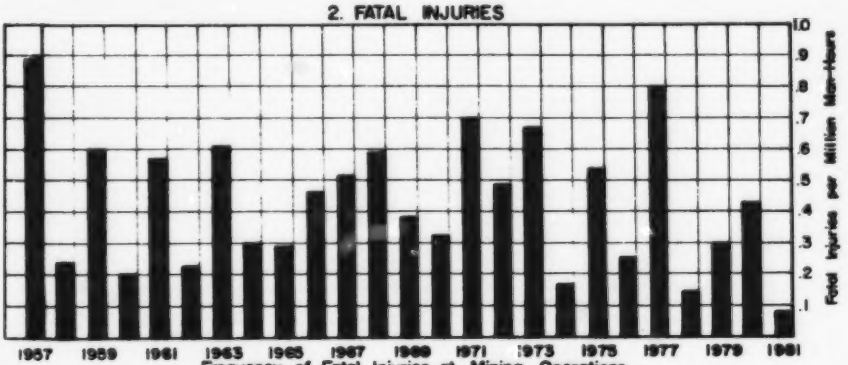
Number of Employees Reported Monthly - Average for 12 Months

YEAR	PRODUCING MINES	DEVELOPING MINES AND MINING CONTRACTORS	MINE CONSTRUCTION CONTRACTORS	QUARRIES	GRAVEL AND SAND PITS, CLAY, PEAT, BENTONITE	CONTRACT DIAMOND DRILLING	TOTAL
	GROUP A	GROUP B	GROUP C	GROUP D	GROUP E	GROUP F	
1981	5,781	292	137	147	562	216	7,135
1980	5,843	178	199	155	715	181	7,271
1979	5,438	184	173	174	793	170	6,932
1978	5,401	202	241	180	760	116	6,900
1977	6,220	257	130	181	734	146	7,668
1976	6,595	174	120	178	767	148	7,982

1. LOST TIME INJURIES

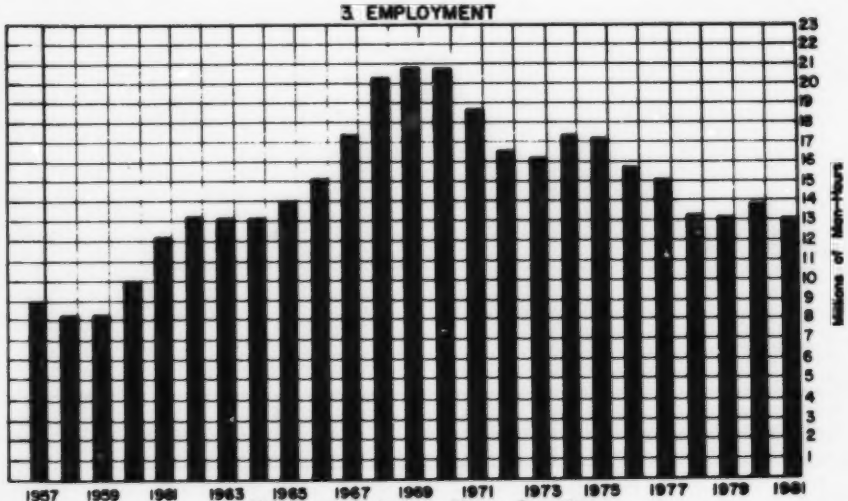
Frequency of Lost-Time Injuries at Mining Operations

2. FATAL INJURIES



Frequency of Fatal Injuries at Mining Operations

3. EMPLOYMENT



Man-Hours Worked at Mining Operations

TABLE NO. 3

MANHOURS WORKED AND LOST TIME INJURIES - BY CLASS OF OPERATION

CLASS OF OPERATION	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
PRODUCING MINES	1981	565	12,393	10,335,176	54.67
	1980	689	12,821	11,159,066	61.74
	1979	627	14,256	10,220,337	61.34
	1978	648	14,491	10,352,964	62.59
	1977	738	12,630	12,210,282	60.44
(GROUP A)					
DEVELOPING MINES AND MINING CONTRACTORS	1981	42	906	655,950	64.03
	1980	38	443	369,011	102.98
	1979	49	1,298	402,134	121.85
	1978	53	1,656	402,323	131.73
	1977	74	1,815	509,475	145.25
(GROUP B)					
MINE CONSTRUCTION CONTRACTORS	1981	15	620	261,777	57.30
	1980	20	575	437,792	45.68
	1979	16	129	381,325	41.96
	1978	13	177	512,108	25.39
	1977	12	229	260,912	45.99
(GROUP C)					
QUARRIES	1981	13	87	263,885	49.26
	1980	21	343	288,714	72.74
	1979	7	93	319,700	21.89
	1978	12	183	351,143	34.17
	1977	18	279	345,632	52.08
(GROUP D)					
GRAVEL, SAND PITS, CLAY, BENTONITE, PEAT	1981	70	621	946,636	73.95
	1980	87	1,423	1,108,415	78.49
	1979	56	1,080	1,397,162	40.08
	1978	73	1,169	1,449,165	50.37
	1977	45	614	1,334,937	33.71
(GROUP E)					
CONTRACT DIAMOND DRILLING	1981	38	1,528	553,498	68.65
	1980	65	1,700	449,597	144.57
	1979	56	1,026	437,851	127.89
	1978	30	592	289,262	103.71
	1977	49	786	351,487	139.41
(GROUP F)					
TOTALS - ALL MINING OPERATIONS	1981	743	16,155	13,016,922	57.08

TABLE NO. 4

MANHOURS WORKED AND LOST TIME INJURIES - BY COMPANY

PRODUCING MINES (GROUP A)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
HUDSON BAY MINING AND SMELTING CO., LIMITED	1981	-	-	214,627	-
	1980	2	133	184,774	10.82
	1979	1	20	68,372	14.63
	1978	-	-	38,302	-
	1977	3	36	153,212	19.58
ANDERSON LAKE					
HUDSON BAY MINING AND SMELTING CO., LIMITED	1981	3	173	91,210	32.89
	1980	1	33	85,562	11.69
	1979	4	76	83,853	47.70
	1978	10	71	101,218	98.80
	1977	4	22	31,637	126.43
CENTENNIAL MINE					
HUDSON BAY MINING AND SMELTING CO., LIMITED	1981	-	-	184,605	-
	1980	-	-	178,561	-
	1979	1	156	188,411	5.31
	1978	2	69	215,853	9.27
	1977	-	-	200,163	-
CHISEL LAKE					
HUDSON BAY MINING AND SMELTING CO., LIMITED	1981	-	-	15,502	-
	1980	-	-	22,605	-
	1979	-	-	24,793	-
	1978	-	-	14,397	-
	1977	-	-	16,104	-
GHOST LAKE-LOST LAKE					
HUDSON BAY MINING AND SMELTING CO., LIMITED	1981	2	81	145,815	13.72
	1980	-	-	143,101	-
	1979	2	55	130,526	15.32
	1978	1	13	135,173	7.40
	1977	4	52	162,626	24.60
OSBORNE LAKE					
HUDSON BAY MINING AND SMELTING CO., LIMITED	1981	6	369	359,779	16.68
	1980	6	242	347,516	17.26
	1979	1	104	350,405	2.85
	1978	3	622	344,626	8.71
	1977	8	116	337,642	23.69
STALL LAKE					

PRODUCING MINES (GROUP A) (continued)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
HUDSON BAY MINING AND SMELTING CO., LIMITED	1981	10	291	135,192	73.97
	1980	16	134	124,415	128.60
	1979	11	499	123,170	89.30
	1978	7	256	80,038	87.46
	1977	-	-	488	-
WESTARM MINE					
HUDSON BAY MINING AND SMELTING CO., LIMITED	1981	3	284	84,835	35.36
	1980	1	94	48,769	20.50
	1979	-	195*	2,145	-
	1978	-	-	3,671	-
	1977	-	-	3,350	-
WHITE LAKE					
HUDSON BAY MINING AND SMELTING CO., LIMITED	1981	112	2,165	2,683,121	41.74
	1980	106	1,777	2,661,304	39.83
	1979	106	1,516	2,499,536	42.41
	1978	145	1,505	2,500,977	57.98
	1977	169	1,322	2,703,750	62.51
FLIN FLON SURFACE FLIN FLON UNDERGROUND					
INCO METALS COMPANY	1981	-	-	-	-
	1980	-	-	-	-
	1979	-	-	-	-
	1978	-	128*	28,283	-
	1977	44	967	467,434	94.13
BIRCHTREE	(OPERATIONS TEMPORARILY SUSPENDED)				
INCO METALS COMPANY	1981	5	119	94,983	52.64
	1980	5	242	109,624	45.61
	1979	7	461	114,651	61.08
	1978	9	389	140,048	64.26
	1977	14	302	242,075	57.83
PIPE LAKE					
INCO METALS COMPANY	1981	137	6,339	3,601,117	38.04
	1980	244	6,425	4,466,041	54.63
	1979	250	7,774	4,051,324	61.69
	1978	274	8,524	4,274,311	64.10
	1977	368	8,045	5,329,722	69.05
THOMPSON SURFACE THOMPSON UNDERGROUND					
SHERRITT GORDON MINES LIMITED	1981	69	784	1,052,421	65.56
	1980	70	1,093	1,017,741	68.78
	1979	34	762	932,756	36.45
	1978	21	182	914,424	22.97
	1977	21	194	996,221	21.08
FOX MINE AND LYNN LAKE					

PRODUCING MINES (GROUP A) (continued)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
SHERRITT GORDON MINES LIMITED RUTTAN MINE	1981 1980 1979 1978 1977	209 225 194 164 86	1,555 2,483 2,274 2,271 977	1,426,012 1,536,320 1,450,841 1,374,440 1,260,849	146.56 146.45 133.71 119.32 68.21
TANTALUM MINING CORPORATION OF CANADA LIMITED BERNIC LAKE	1981 1980 1979 1978 1977	9 13 16 12 10	233 165 364 461 215	245,957 232,733 198,954 187,203 179,530	36.59 55.86 80.42 64.10 55.70

DEVELOPING MINES & MINING CONTRACTORS (GROUP B)

AURORA QUARRYING LIMITED FOR: HUDSON BAY MINING AND SMELTING CO., LIMITED FLIN FLON WESTARM	1981 1980 1979 1978 1977	- - - 10 23	- - - 575 705	2,236 2,627 5,980 26,309 182,972	- - - 380.10 125.70
AURORA QUARRYING LIMITED FOR: HUDSON BAY MINING AND SMELTING CO., LIMITED SNOW LAKE SPRUCE POINT	1981 1980 1979 1978 1977	13 7 5 9 22	245 87 53 404 685	126,055 79,198 36,657 35,849 92,940	103.13 88.39 136.40 251.05 236.71
AURORA QUARRYING LIMITED FOR: SHERRITT GORDON MINES LIMITED RUTTAN MINE	1981 1980 1979 1978 1977	- 3 9 12 -	- 57 834 257 -	- 22,110 92,690 81,399 3,743	- 135.69 97.10 147.42 -
FLIN FLON MINING CONTRACTORS FOR: HUDSON BAY MINING AND SMELTING CO., LIMITED CENTENNIAL MINE WESTARM MINE	1981	3	106	8,368	358.51

DEVELOPING MINES & MINING CONTRACTORS (GROUP B) (continued)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
FLIN FLON MINING CONTRACTORS FOR: HUDSON BAY MINING AND SMELTING CO., LIMITED GHOST LAKE MINE	1981	1	65	15,632	63.97
R.F. FRY AND ASSOCIATES (PACIFIC) LIMITED FOR: HUDSON BAY MINING AND SMELTING CO., LIMITED TROUT LAKE	1981 1980	6 2	57 23	98,096 6,587	61.16 303.63
R.F. FRY AND ASSOCIATES (PACIFIC) LIMITED FOR: HUDSON BAY MINING AND SMELTING CO., LIMITED WHITE LAKE	1981 1980 1979 1978 1977	- 2 5 6 8	- 24 65 128 87	- 27,477 93,420 95,723 61,578	- 72.79 53.52 62.68 129.92
F.A. MACINTYRE LIMITED FOR: HUDSON BAY MINING AND SMELTING CO., LIMITED OSBORNE LAKE MINE	1981 1980 1979 1978 1977	6 8 17 11 3	137 57 217 122 38	69,991 46,340 52,062 56,810 41,323	85.73 172.64 326.53 193.63 72.60
PATRICK HARRISON AND COMPANY LIMITED FOR: SHERRITT GORDON MINES LIMITED RUTTAN	1981 1980 1979 1978 1977	8 15 3 - 1	121 194 31 - 4	98,328 142,775 20,432 1,114 15,379	81.36 105.06 146.82 - 65.02
J.S. REDPATH LIMITED FOR: SHERRITT GORDON MINES LIMITED RUTTAN	1981 1980 1979	2 - -	98 - -	26,804 12,845 1,318	74.62 - -
SAN ANTONIO JOINT VENTURE LTD. BISSETT	1981 1980	3 1	77 1	210,440 29,052	14.26 34.42

MINE CONSTRUCTION CONTRACTORS (GROUP C)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
CAMPBELL NORTH LTD.	1981	-	-	11,603	-
FOR: INCO METALS COMPANY	1980	1	5	40,406	24.75
	1979	-	-	39,272	-
	1978	-	-	21,734	-
	1977	-	-	11,755	-
THOMPSON					
CROWN TIRE SERVICE FOR:	1981	-	-	3,785	-
SHERRITT GORDON MINES	1980	-	-	8,099	-
LIMITED	1979	1	1	10,781	92.76
	1978	-	-	13,447	-
	1977	-	-	15,133	-
RUTTAN MINE					
DOMINION BRIDGE COMPANY	1981	-	-	-	-
LIMITED	1980	-	-	6,871	-
	1979	-	-	4,579	-
	1978	2	29	65,729	30.43
	1977	-	-	5,888	-
VARIOUS LOCATIONS					
LA FURLANE PRE-CAST LTD.	1981	-	-	12,274	-
FOR: INCO METALS COMPANY	1980	1	17	24,597	40.65
	1979	-	-	7,520	-
	1978	-	-	3,655	-
	1977	-	-	13,524	-
THOMPSON					
GORDON A. MACEACHERN FOR:	1981	-	-	68,105	-
INCO METALS COMPANY	1980	1	35	105,338	9.49
	1979	3	23	104,268	28.77
	1978	2	58	96,856	20.65
	1977	3	88	118,964	25.22
THOMPSON					
MALCOM CONSTRUCTION	1981	-	-	2,365	-
(THOMPSON) LTD. FOR:	1980	-	-	2,398	-
INCO METALS COMPANY	1979	-	-	1,747	-
	1978	-	-	2,160	-
	1977	-	-	2,840	-
THOMPSON T-1					
NORTHWEST ELECTRIC	1981	1	8	20,550	48.66
(THOMPSON) CO. FOR:	1980	1	1	41,203	24.27
INCO METALS COMPANY	1979	-	-	13,875	-
	1978	-	-	1,236	-
	1977	-	-	5,733	-
THOMPSON T-1					

MINE CONSTRUCTION CONTRACTORS (GROUP C) (continued)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
GEORGE RAMSAY CUSTOM IRON WORKS LTD. FOR: HUDSON BAY MINING AND SMELTING CO., LIMITED SNOW LAKE	1981 1980 1979 1978	6 2 1 2	319 177 4 48	48,827 35,369 21,538 27,815	122.88 56.55 46.43 71.90
THYSSEN MINING CONSTRUCTION OF CANADA LTD. FOR: HUDSON BAY MINING AND SMELTING CO., LIMITED VARIOUS LOCATIONS	1981 1980 1979	4 - -	41 - -	33,839 5,460 14,500	118.21 - -
THYSSEN MINING CONSTRUCTION OF CANADA LTD. FOR: INCO METALS COMPANY THOMPSON	1981 1980 1979 1978 1977	1 14 - - 3	119 340 - - 69	47,889 146,464 9,878 10,874 29,177	20.88 95.59 - - 102.82
THYSSEN MINING CONSTRUCTION OF CANADA LTD. FOR: SHERRITT GORDON MINES LIMITED RUTTAN MINE	1981 1980	3 -	133 -	4,447 11,166	674.61 -
J.C. WILSON CONSTRUCTION FOR: SHERRITT GORDON MINES LIMITED RUTTAN MINE	1981 1980 1979 1978 1977	- - - 1 -	- - 17* 1 -	8,093 10,421 11,145 10,379 17,519	- - - 96.35 -

QUARRIES (GROUP D)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
BERGNER EQUIPMENT RENTALS LTD. FOR: DOMTAR CONSTRUCTION MATERIALS LTD.	1981	-	-	4,520	-
	1980	-	-	3,195	-
	1979	-	-	3,311	-
	1978	-	-	7,517	-
	1977	-	-	8,505	-
GYPSUMVILLE					
CAMBRIAN BLASTING CO. LTD.	1981	1	1	8,728	114.57
C.N.R. QUARRY (MILLWATER)					
CANADA CEMENT LAFARGE LTD. PLANT NO. 13A	1981	-	-	37,460	-
	1980	-	-	41,452	-
	1979	-	-	41,867	-
	1978	-	-	39,214	-
	1977	-	-	39,899	-
STEEP ROCK					
CITY OF WINNIPEG PRIMARY MATERIALS DIVISION	1981	-	-	2,670	-
	1980	3	25	15,964	187.92
	1979	1	5	15,721	63.60
	1978	-	16*	13,615	-
	1977	-	-	12,965	-
STONY MOUNTAIN					
COLD SPRING GRANITE (CANADA) LIMITED	1981	10	69	30,321	329.80
	1980	12	127	35,051	342.36
	1979	2	5	49,367	40.51
	1978	2	27	54,523	55.02
	1977	5	69	63,062	79.29
BROOKFIELD (LAC DU BONNET)					
GENSTAR CEMENT LTD.	1981	-	-	18,144	-
	1980	-	-	17,501	-
	1979	-	-	16,160	-
	1978	-	-	17,180	-
	1977	-	-	16,200	-
MAFEKING					

QUARRIES (GROUP D) (continued)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
GILLIS QUARRIES LTD.	1981	-	-	55,977	-
	1980	1	91	47,688	20.97
	1979	1	71	60,235	16.60
	1978	7	64	77,800	89.97
	1977	9	155	92,890	96.89
GARSON					
MIDWEST QUARRIES LIMITED	1981	1	6	14,502	68.96
	1980	2	49	6,964	287.19
	1979	1	7	776	1288.65
	1978	1	7	4,800	288.33
	1977	2	20	6,400	312.50
PNEUMATIC DRILLING AND BLASTING LIMITED	1981	-	-	13,681	-
	1980	-	-	5,570	-
STONEWALL					
STANDARD LIMESTONE QUARRIES	1981	-	-	2,823	-
	1980	1	40	43,746	22.86
	1979	-	-	45,203	-
	1978	-	-	44,962	-
	1977	-	-	47,092	-
STONEWALL					
STEEL BROTHERS CANADA LTD.	1981	1	11	45,805	21.83
	1980	2	11	47,843	41.80
	1979	2	5	49,890	40.08
	1978	1	69	51,056	19.59
	1977	2	35	50,825	39.35
FAULKNER					
STONEWALL QUARRIES LTD.	1981	-	-	7,604	-
	1980	-	-	5,696	-
STONEWALL					
WESTERN GYPSUM (1978) LTD.	1981	-	-	21,650	-
	1980	-	-	18,044	-
	1979	-	-	13,290	-
	1978	-	-	6,175	-
AMARANTH					

GRAVEL AND SAND PITS (GROUP E)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
ALSIP BRICK, TILE AND LUMBER CO., LTD.	1981	-	-	-	-
	1980	-	-	1,961	-
	1979	-	-	-	-
	1978	-	-	2,352	-
	1977	-	-	2,668	-
BEAUSEJOUR					
ARGO ROCK LTD. (FLUX PIT)	1981	-	-	7,159	-
	1980	-	-	8,307	-
	1979	-	-	13,088	-
	1978	-	-	10,751	-
	1977	5	34	31,820	157.13
THOMPSON					
BRADLEY SAND & GRAVEL LTD.	1981	2	12	30,317	65.97
	1980	7	61	39,614	176.71
	1979	6	107	37,472	160.11
	1978	3	19	47,759	62.82
	1977	3	37	52,786	56.83
BRANDON					
BUILDING PRODUCTS & CONCRETE SUPPLY	1981	-	-	15,350	-
	1980	1	2	40,052	24.97
	1979	2	5	66,885	29.90
	1978	8	235	75,292	106.25
	1977	4	92	75,710	52.83
CITY OF WINNIPEG ENGINEERING DEPARTMENT	1981	1	1	6,249	160.03
	1980	-	-	14,983	-
	1979	1	5	16,691	59.91
	1978	2	15	19,381	103.19
	1977	-	-	16,320	-
BIRDS HILL AND PINE RIDGE					
FRASER SAND AND GRAVEL CO. LTD.	1981	3	34	49,173	61.01
	1980	1	7	48,730	20.52
	1979	1	10	59,265	16.87
	1978	2	27	61,165	32.70
	1977	3	31	56,603	53.00

GRAVEL AND SAND PITS (GROUP E) (continued)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
SMOOK BROS. LTD. FOR: INCO METALS COMPANY THOMPSON	1981	-	-	39,198	-
	1980	1	4	33,651	29.72
	1979	2	17	24,319	82.24
	1978	-	-	9,674	-
	1977	3	31	13,111	228.81
STEEL BROTHERS CANADA LTD. BLACK ISLAND	1981	-	-	24,567	-
	1980	2	93	26,244	76.21
	1979	1	4	22,070	45.31
	1978	1	1	19,770	50.58
	1977	2	12	20,807	96.12
STEEL BROTHERS CANADA LTD. SELKIRK	1981	5	62	33,230	150.47
	1980	3	7	36,641	81.88
	1979	1	3	40,143	24.91
	1978	5	22	34,769	143.81
	1977	-	-	27,863	-
SUPERCRETE LTD. RICHER	1981	1	2	25,422	39.34
	1980	1	25	32,134	31.12
	1979	1	2	32,446	30.82
	1978	1	2	32,761	30.52
	1977	2	6	29,783	67.15
WESTERN CONCRETE PRODUCTS LIMITED BRANDON	1981	-	-	-	-
	1980	-	-	-	-
	1979	-	-	3,458	-
	1978	-	-	4,045	-
	1977	-	-	4,830	-
WINNIPEG SUPPLY & FUEL CO. LTD. GULL LAKE	1981	3	22	9,944	301.69
	1980	1	9	18,137	55.14
	1979	1	1	25,462	39.27
	1978	2	5	30,193	66.24
	1977	1	8	27,010	37.02
TOTALS OF ALL TRANSIENT GRAVEL AND SAND PIT OPERATIONS AS SHOWN ON THE NEXT PAGE	1981	15	181	345,453	43.42
	1980	18	803	472,998	38.06
	1979	17	750	818,894	20.75
	1978	22	601	827,967	26.57
	1977	13	255	774,800	16.78

GRAVEL AND SAND PITS (GROUP E) (continued)

TRANSIENT GRAVEL AND SAND PIT OPERATIONS TOTALLED ABOVE

NAME OF OPERATOR	P.O. ADDRESS	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED
ADAM'S CONCRETE & GRAVEL	DELORAINE	-	-	5,200
B.A. CONSTRUCTION LTD.	VARIOUS	2	11	13,941
BIRDS HILL GRAVEL & STONE LTD.	BIRDS HILL	-	-	8,400
BORGER ENTERPRISES LTD.	WINNIPEG	1	15	9,138
L.C. BRADLEY CONST. LTD.	ARDEN	-	-	1,000
BRANDON, CITY OF	BRANDON	1	23	4,625
BRINCHESKI BROS.	LAC DU BONNET	-	-	1,800
BRODA CONSTRUCTION INC.	WABOWDEN	1	5	42,815
BUCHKO ENTERPRISES	ARBORG	-	-	17,200
CUMMING & DOBBIE	BRANDON	-	-	1,666
DIAMOND REDI-MIX	STEINBACH	-	-	6,315
FAVORITE TRANSPORT LTD.	WINNIPEG	-	-	4,200
FORT GARRY BUILDING PRODUCTS	SELKIRK	1	15	4,442
GERTZ TRUCKING LTD.	VIRDEN	-	-	1,200
KACHUR SAND & GRAVEL	NW 36-10-4E	-	-	2,520
A.M. KELLY & SON LTD.	WINNIPEG	-	-	9,009
KISSICK CONSTRUCTION	MIAMI	-	-	1,000
KOZAK & SONS LTD.	NEEPAWA	-	-	1,200
LAKESHORE CONTRACTING	SELKIRK	-	-	2,860
LESTER'S CARTAGE	WINNIPEG	-	-	7,271
MARQUETTE GRAVEL SUPPLY	ST. EUSTACHE	-	-	2,110
MARTIN, FRED	BEAUSEJOUR	-	-	2,000
MARVAL CONSTRUCTION LTD.	WINNIPEG	1	4	14,086
MULDER CONSTRUCTION & MATERIALS	WINNIPEG	-	-	9,000
HUGH MUNRO CONSTRUCTION	FORT WHYTE	-	-	18,500
NAAYKENS TRANSPORT LTD.	BEAUSEJOUR	-	-	1,200
NELSON RIVER CONSTRUCTION LTD.	ST. BONIFACE	1	11	25,418
NORTHEASTERN CONST. LTD.	BRANDON	-	-	8,072
OAKRIDGE GRAVEL LTD.	STEINBACH	-	-	4,575
RIVERSIDE GRAVEL CO. LTD.	WINNIPEG	1	28	36,730
ROBITAILLE, JOS.	NOTRE DAME	-	-	4,000
SELK-RIDGE GRAVEL LTD.	WINNIPEG	-	-	2,679
SPRINGFIELD, R.M. OF	OAKBANK	-	-	2,681
ST. PIERRE GRAVEL LTD.	ST. PIERRE	1	5	17,383
THREE-WAY TRUCKING LTD.	THOMPSON	4	62	31,106
TURTLE MOUNTAIN SAND & GRAVEL	BOISSEVAIN	-	-	2,691
WALLACE SAND & GRAVEL	PETERSFIELD	-	-	2,250
WINKLER CONSTRUCTION LTD.	WINKLER	1	2	4,774
ZENITH PAVING LTD.	BRANDON	-	-	4,350
TOTAL OF 19 OPERATORS EACH HAVING LESS THAN 1,000 MANHOURS		-	-	6,046
		15	181	345,453

CLAY PITS (GROUP E)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
CANADA CEMENT LAFARGE LTD.	1981	-	-	8,839	-
	1980	-	-	7,592	-
	1979	-	-	12,333	-
	1978	-	-	11,935	-
	1977	-	-	13,177	-
FORT WHYTE					
GENSTAR CEMENT LTD.	1981	-	-	1,926	-
	1980	-	-	3,059	-
	1979	-	-	1,487	-
	1978	-	-	2,086	-
	1977	-	-	1,527	-
TUXEDO					

BENTONITE (GROUP E)

PEMBINA MOUNTAIN CLAYS INC.	1981	-	-	5,490	-
	1980	-	-	5,783	-
	1979	-	-	4,608	-
	1978	-	-	5,553	-
	1977	-	-	4,917	-
MIAMI					
PEMBINA MOUNTAIN CLAYS INC.	1981	-	-	11,934	-
	1980	1	11	12,794	78.16
	1979	2	9	9,918	201.65
	1978	-	-	8,396	-
	1977	-	-	7,058	-
MORDEN					

PEAT (GROUP E)

FISONS WESTERN CORPORATION	1981	40	307	332,385	120.34
	1980	49	395	278,738	175.79
	1979	23	184	201,662	114.05
	1978	27	242	220,431	122.49
	1977	12	139	151,478	79.22

TABLE NO. 4

MANHOURS WORKED AND LOST TIME INJURIES - BY COMPANY

CONTRACT DIAMOND DRILLING (GROUP F)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
AMISK DRILLING	1981	5	427	118,693	42.13
	1980	18	624	124,432	144.66
	1979	3	426	71,332	42.05
	1978	7	112	54,472	128.51
	1977	7	153	76,500	91.50
VARIOUS LOCATIONS					
CONNORS DRILLING LTD.	1981	-	-	-	-
	1980	-	-	2,655	-
	1979	-	-	617	-
	1978	1	21	14,192	70.46
	1977	-	-	-	-
HEATH AND SHERWOOD DRILLING	1981	-	-	-	-
	1980	7	291	26,159	267.59
	1979	9	130	58,750	153.19
THOMPSON					
KENORA DIAMOND DRILLING LTD.	1981	2	37	19,961	100.20
	1980	-	-	12,437	-
	1979	5	75	21,240	235.40
	1978	1	6	13,640	73.31
	1977	-	-	3,141	-
VARIOUS LOCATIONS					
LONGYEAR CANADA INC.	1981	-	-	-	-
	1980	-	-	11,760	-
	1979	-	-	3,436	-
	1978	1	22	5,192	192.60
	1977	1	30	13,452	74.34
VARIOUS LOCATIONS					
MAISONNEUVE ENERGY MATERIALS	1981	-	-	4,056	-
LAC DU BONNET					
R.M. McISAAC DRILLING	1981	7	117	34,089	205.34
	1980	7	73	15,230	459.62
VARIOUS LOCATIONS					

CONTRACT DIAMOND DRILLING (GROUP F) (continued)

NAME OF COMPANY	YEAR	LOST TIME INJURIES	DAYS LOST	MANHOURS WORKED	FREQUENCY
MIDWEST DRILLING COMPANY	1981	21	930	323,412	64.93
	1980	27	615	206,811	130.55
	1979	26	287	184.139	141.19
	1978	11	387	141,996	77.47
VARIOUS LOCATIONS	1977	18	424	183,230	98.24
N. MORRISETTE DIAMOND DRILLING	1981	-	-	-	-
	1980	1	5	3,312	301.93
	1979	1	21	24,665	40.54
	1978	-	-	3,918	-
SNOW LAKE					
WESCORE DRILLING LIMITED	1981	3	17	37,142	80.77
	1980	5	92	46,801	106.84
	1979	12	87	73,672	162.88
	1978	9	44	55,852	161.14
	1977	23	179	75,164	306.00
VARIOUS LOCATIONS					
WYNNE DRILLING LTD.	1981	-	-	16,145	-
BISSETT					

TABLE NO. 5

NUMBER OF LOST TIME INJURIES 1981 CLASSIFIED BY OPERATION OR WORK PERFORMED	MINES GROUPS A - B - C			GROUP D	GROUP E	GROUP F	TOTAL ALL MINING OPERATIONS
	SURFACE	UNDERGROUND	TOTAL MINES	QUARRIES	GRAVEL & SAND PITS, CLAY, BENTONITE, PEAT	CONTRACT DIAMOND DRILLING	
ROCK DRILLING	-	66	66	4	-	6	76
ROCKBOLTING	-	1	1	-	-	-	1
BLASTING	-	8	8	-	-	-	8
SCALING	-	17	17	-	-	-	17
TIMBERING - STAGING - CARPENTRY	1	18	19	-	-	-	19
MUCKING: HAND	4	5	9	-	1	-	10
MUCKING: MECHANICAL LOADING	2	37	39	-	-	-	39
SLUSHING	-	1	1	-	-	-	1
SCRAMS & DRAWPOINTS	-	4	4	-	-	-	4
CHUTE PULLING	-	7	7	-	-	-	7
MINE CARS - TRUCKS HANDLING	-	5	5	-	-	1	6
MECHANICAL HAULAGE	-	7	7	-	6	1	14
RAILWAY CARS: HANDLING	1	3	4	-	-	-	4
SURFACE TRUCKS, LOADERS	8	1	9	2	5	-	16
GRIZZLIES	-	-	-	-	-	-	-
CRUSHING	2	1	3	-	4	-	7
CONVEYORS	-	1	1	-	3	-	4
HOISTING: MEN - MATERIALS	-	4	4	2	-	-	6
MATERIALS HANDLING	83	70	153	1	26	3	183
TRAVELLING: LADDERS - STAIRS	10	6	16	-	1	-	17
TRAVELLING: LEVEL	28	29	57	3	1	-	61
INSTALLATION - MAINTENANCE - REPAIR	33	29	62	-	17	1	80
SHOPS: METAL WORK - SHEARING	3	-	3	-	-	-	3
WELDING - BURNING	6	2	8	-	1	-	9
SHARPENING - GRINDING	1	1	2	-	-	1	3
MILLS: TENDING - MILLS	3	-	3	-	-	-	3
TANKS - LINES	3	-	3	-	-	-	3
ROASTERS - SMELTERS - DRYERS	-	-	-	-	-	-	-
ROASTERS - TENDING FURNACES	5	-	5	-	-	-	5
ROASTERS - HANDLING FEED PRODUCTS	13	-	13	-	-	-	13
REFINERIES: CASTING	2	-	2	-	-	-	2
HANDLING ANODES - CATHODES	25	-	25	-	-	-	25
TENDING TANKS - LINES	1	-	1	-	-	-	1
DIAMOND DRILLING - GENERAL	-	9	9	-	-	22	31
DIAMOND DRILLING - MOVING, SET-UP	-	2	2	-	-	3	5
DIAMOND DRILLING - CUT LINES	-	4	4	-	-	-	4
NOT CLASSIFIED	23	27	50	1	5	-	56
TOTALS	257	365	622	13	70	38	743

TABLE NO. 6

NUMBER OF LOST TIME INJURIES 1981 CLASSIFIED BY CAUSES OR AGENTS	MINES GROUPS A - B - C			GROUP D	GROUP E	GROUP F	TOTAL ALL MINING OPERATIONS
	SURFACE	UNDERGROUND	TOTAL MINES	QUARRIES	GRAVEL & SAND PITS, CLAY, BENTONITE, PEAT	CONTRACT DIAMOND DRILLING	
MOBILE EQUIPMENT	9	17	26	-	2	2	30
STRIKING - STRUCK BY	29	74	103	3	6	4	116
BARS/OVER FULCRUM	3	-	3	-	1	-	4
HAND TOOLS	13	10	23	-	2	4	29
POWER TOOLS	8	9	17	-	-	3	20
CAUGHT BETWEEN MACHINER-EQUIP.	11	26	37	2	6	8	53
SLIPS - FALLS - TWISTS: LEVEL	53	56	109	2	9	4	124
FALLS FROM HEIGHTS	13	17	30	-	10	1	41
LIFTING - MOVING	72	61	133	1	17	4	155
FALLS OF GROUND	-	15	15	-	-	-	15
FALLING OBJECTS	8	22	30	2	9	2	43
RUN OF LOOSE MATERIALS	1	7	8	-	-	-	8
FOREIGN BODIES	4	2	6	1	-	2	9
SHARP OBJECTS	4	3	7	1	2	2	12
HOT MATERIALS	10	1	11	-	-	-	11
CHEMICALS	4	1	5	-	-	-	5
COMPRESSED AIR - GASES	3	3	6	-	-	1	7
EXPLOSIVES	-	-	-	-	-	-	-
ELECTRICITY	1	1	2	-	-	-	2
STEAM	-	-	-	-	-	-	-
NOXIOUS GASES	1	26	27	-	-	-	27
FLASHES: ELECTRICITY, WELDING	1	-	1	-	1	-	2
FIRES	-	-	-	-	2	-	2
NOT CLASSIFIED	9	14	23	1	3	1	28
TOTALS	257	365	622	13	70	38	743

TABLE NO. 7

NUMBER OF LOST TIME INJURIES 1981 CLASSIFIED BY NATURE OF INJURY	MINES GROUPS A - B - C			GROUP D	GROUP E	GROUP F	TOTAL ALL MINING OPERATIONS
	SURFACE	UNDERGROUND	TOTAL MINES	QUARRIES	GRAVEL & SAND PITS, CLAY, BENTONITE, PEAT	CONTRACT DIAMOND DRILLING	
AMPUTATIONS	1	3	4	-	-	-	4
DISLOCATIONS	2	1	3	-	-	-	3
FRACTURES	14	30	44	-	4	5	53
MULTIPLE INJURIES	4	3	7	-	4	-	11
EYE INJURIES	5	7	12	1	1	3	17
HERNIA	1	-	1	-	-	-	1
STRAINS AND SPRAINS	133	137	270	2	26	6	304
CUTS AND BRUISES	79	148	227	10	27	21	285
CONCUSSIONS	1	2	3	-	-	1	4
BURNS - FLASH	1	-	1	-	1	-	2
BURNS - OTHER	12	3	15	-	2	2	19
ELECTRIC SHOCK	1	-	1	-	-	-	1
POISONING - ASPHYXIATION	2	18	20	-	-	-	20
INFECTION	1	-	1	-	-	-	1
DERMATITIS	-	1	1	-	-	-	1
NOT CLASSIFIED	-	12	12	-	5	-	17
TOTALS	257	365	622	13	70	38	743

INCIDENTS INVOLVING EXPLOSIVES - 1981

DESCRIPTION OF INCIDENTS	INJURIES
A drift round was initiated with a stope blast. Supervisor failed to notify the oncoming shift and workers entered the area prematurely.	No Injuries
Improper check-out of personnel from underground prior to blasting.	No Injuries
A hole in a piece of loose was loaded with three sticks of Tovex and an EB 12 detonator. The detonator was connected to the blasting line. The blaster went to the blasting station to connect the blasting line to a one shot blaster. On removing the short from the blasting line he heard an explosion. Thinking it was a blast from a scram below him, he tried to detonate his shot but couldn't. On investigation he found his shot had been detonated.	No Injuries
A worker blasting a hang-up in a loading chute, sent his partner to guard the blast. His partner let a mechanic walk into the blast area without warning him of the blast. The worker in charge of the blast saw the mechanic's light approaching and delayed the blast.	No Injuries
Blasting was being carried out at a new loading pocket in the shaft. The shaft leader told one of his men to go down the decline and warn any workers at the bottom of the shaft of the blast. The man came back up the decline and said it was all clear. The blast was set off and later it was learned that three men were at the bottom of the decline at the time of the blast.	No Injuries

SUMMARY OF FATAL ACCIDENTS - 1981

DATE AND PLACE	NAME	CAUSE
July 31 - Cambrian Blasting Company Millwater Quarry	B. McFarlane	Struck by a fragment of steel which chipped off a drill rod coupling.

DETAILS OF FATAL ACCIDENT

Barry William McFarlane, age 42, married with two dependents, died at approximately 2:25 p.m. on July 31, 1981 as a result of injuries sustained when he was struck by a small piece of steel which broke off a coupling on an air track drill.

Mr. McFarlane was employed by Cambrian Blasting Company as a surface driller at the Millwater Quarry of Canadian National Railways. The quarry is located approximately 20 miles southeast of Flin Flon, Manitoba. McFarlane had approximately 20 years drilling experience and was considered by his co-workers and superiors to be an experienced and safe worker.

On the day of the accident, McFarlane and his partner, Mr. George Brightnose, drill helper, were working at the Millwater Quarry. The drill equipment being used was an EMC-350 Air Track with a VL-140 Drill and a Joy Compressor, Model RPS-850. One and three-eighth (1 3/8) inch hexagon steel in ten foot lengths were used to drill the twenty foot holes.

Prior to the accident, McFarlane moved the air track by himself to the next drill hole location, while Brightnose was fueling up the compressor, which was located 55 feet behind and to the south of the air track. When Brightnose finished the refueling, he walked back to the drill, where he picked up two drill bits and asked McFarlane if he should sharpen them. McFarlane agreed.

The bit sharpening equipment was set up at the compressor of the second drill, located approximately 250 feet across the quarry. To reach the bit sharpening equipment, Brightnose travelled about 1,000 feet by truck around to the south rim of the quarry. He sharpened one bit and returned with it to the drill, about ten minutes later. On returning to the drill, Brightnose found the machine still running but McFarlane was lying on the ground about 15 feet from the drill rig. Brightnose thought he was dead and ran to his foreman, Mr. Albert Lambert, to summon help.

Lambert, accompanied by two co-workers, rushed to the site and shut down the drilling machine. He checked McFarlane's pulse but could find none. He left the two men on the scene, went back to his office and phoned the ambulance. Then he went back to the scene of the accident when he realized he should notify the R.C.M.P. in Flin Flon, which he did immediately.

Dr. M. Diwan of Flin Flon authorized the removal of the body, which was subsequently transported to Flin Flon General Hospital. McFarlane was pronounced dead at 4:44 p.m. by Dr. Diwan.

Investigation following the accident revealed that McFarlane had drilled six feet on his second ten foot steel, with four feet still to be drilled. The hole was being drilled in fractured ground and this was the fourth attempt to drill a hole at this location. The drill and slide were approximately five degrees out of alignment with the drill rod projecting from the hole. The chuck rod had broken at the first coupling which was seven inches from the drill. It would appear that at some point, possibly upon release of downward pressure on the rods, the broken end of the chuck rod released from the coupling and struck the edge of the coupling, chipping off a fragment which struck McFarlane.

McFarlane, it would appear, had been standing at the drill controls which were located 30 inches from the centre of the slide and four feet above the ground. The fragment of the coupling struck him in the throat, lacerating the carotid artery. There were no witnesses to the accident.

Upon the recommendation of the Mines Inspector, a guard was mounted on the slide in front of the drill controls to protect the operator.

An inquest under the Fatality Inquiries Act, was held on June 22, 1982 in the courthouse in Flin Flon, Manitoba at 10:15 a.m. with W. Martin, Provincial Judge, and D. Harvey, Crown Attorney, conducting the proceedings.

Judge Martin, in his report concluded that "the deceased came to his death by the following means: by bleeding to death as a result of being struck in the neck by a piece of flying steel whilst employed as a driller. The flying steel emanated from a broken drill stem and severed his carotid artery". Judge Martin also noted "evidence was heard that what happened here was sheer accident, although a guard has now been mounted on all similar equipment which should obviate future occurrences".